

SLOVENSKI STANDARD
SIST EN IEC 60384-17:2019**01-julij-2019****Nadomešča:**
SIST EN 60384-17:2006

Nespremenljivi kondenzatorji za uporabo v elektronski opremi - 17. del: Področna specifikacija - Nespremenljivi kondenzatorji z dielektrikom iz metalizirane polipropilenske folije za izmenične napetosti in impulzni kondenzatorji (IEC 60384-17:2019)

Fixed capacitors for use in electronic equipment - Part 17: Sectional specification - Fixed metallized polypropylene film dielectric AC and pulse capacitors (IEC 60384-17:2019)

Festkondensatoren zur Verwendung in Geräten der Elektronik - Teil 17: Rahmenspezifikation - Festkondensatoren mit metallisierter Polypropylen-Folie als Dielektrikum für Wechselspannungs- und Impulsbetrieb (IEC 60384-17:2019)

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Condensateurs fixes utilisés dans les équipements électroniques - Partie 17: Spécification intermédiaire - Condensateurs fixes pour tension alternative et pour impulsions à diélectrique en film de polypropylène métallisé (IEC 60384-17:2019)

Ta slovenski standard je istoveten z: EN IEC 60384-17:2019

ICS:

31.060.10 Fiksni kondenzatorji Fixed capacitors

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EUROPEAN STANDARD

EN IEC 60384-17

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 31.060.30

Supersedes EN 60384-17:2005

English Version

**Fixed capacitors for use in electronic equipment - Part 17:
Sectional specification - Fixed metallized polypropylene film
dielectric AC and pulse capacitors
(IEC 60384-17:2019)**

Condensateurs fixes utilisés dans les équipements
électroniques - Partie 17: Spécification intermédiaire -
Condensateurs fixes pour tension alternative et pour
impulsions à diélectrique en film de polypropylène métallisé
(IEC 60384-17:2019)

Festkondensatoren zur Verwendung in Geräten der
Elektronik - Teil 17: Rahmenspezifikation:
Festkondensatoren mit metallisierter Polypropylen-Folie als
Dielektrikum für Wechselspannungs- und Impulsbetrieb
(IEC 60384-17:2019)

This European Standard was approved by CENELEC on 2019-04-22. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60384-17:2019 (E)**European foreword**

The text of document 40/2654/FDIS, future edition 3 of IEC 60384-17, prepared by IEC/TC 40 "Capacitors and resistors for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60384-17:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-01-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-04-22

This document supersedes EN 60384-17:2005.

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The text of the International Standard IEC 60384-17:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60063	NOTE	Harmonized as EN 60063
IEC 60068 (series)	NOTE	Harmonized as EN 60068 (series)
IEC 60384-14	NOTE	Harmonized as EN 60384-14

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60062	-	Marking codes for resistors and capacitors	EN 60062	-
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60384-1	2016	Fixed capacitors for use in electronic equipment - Part 1: Generic specification	EN 60384-1	2016
IEC 60384-16	-	Fixed capacitors for use in electronic equipment - Part 16: Sectional specification: Fixed metallized polypropylene film dielectric d.c. capacitors	EN 60384-16	-
IEC 61193-2	2007	Quality assessment systems - Part 2: Selection and use of sampling plans for inspection of electronic components and packages	EN 61193-2	2007
ISO 3	-	Preferred numbers - Series of preferred numbers	-	-

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IEC 60384-17

Edition 3.0 2019-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fixed capacitors for use in electronic equipment –
Part 17: Sectional specification – Fixed metallized polypropylene film dielectric
AC and pulse capacitors**

**Condensateurs fixes utilisés dans les équipements électroniques –
Partie 17: Spécification intermédiaire – Condensateurs fixes pour tension
alternative et pour impulsions à diélectrique en film de polypropylène métallisé**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
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INTERNATIONALE

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CONTENTS

FOREWORD	6
1 General	8
1.1 Scope	8
1.2 Object	8
1.3 Normative references	8
1.4 Information to be given in a detail specification	9
1.4.1 General	9
1.4.2 Outline drawing and dimensions	9
1.4.3 Mounting	10
1.4.4 Ratings and characteristics	10
1.4.5 Marking	10
1.5 Terms and definitions	10
1.5.1 General	10
1.5.2 Performance and stability grades	11
1.5.3 Rated voltages	11
1.6 Marking	12
1.6.1 General	12
1.6.2 Information for marking	12
1.6.3 Marking on capacitors	12
1.6.4 Marking on packaging	12
1.6.5 Additional marking	12
2 Preferred ratings and characteristics	13
2.1 Preferred characteristics	13
2.1.1 General	13
2.1.2 Preferred climatic categories	13
2.2 Preferred values of ratings	13
2.2.1 Nominal capacitance (C_N)	13
2.2.2 Tolerance on nominal capacitance	13
2.2.3 Nominal capacitance with associated tolerance values	13
2.2.4 Rated AC voltage (U_{RAC} or $U_{R\sim}$)	13
2.2.5 Category AC voltage (U_{CAC} or $U_{C\sim}$)	14
2.2.6 Rated temperature	14
2.2.7 Rated AC current (if required)	14
2.2.8 Rated pulse voltage (if required)	15
3 Quality assessment procedures	15
3.1 Primary stage of manufacture	15
3.2 Structurally similar components	15
3.3 Certified test records of released lots	15
3.4 Qualification approval procedures	15
3.4.1 General	15
3.4.2 Qualification approval on the basis of the fixed sample size procedure	15
3.5 Quality conformance inspection	26
3.5.1 Formation of inspection lots	26
3.5.2 Test schedule	26
3.5.3 Delayed delivery	26
3.5.4 Assessment levels	26

4	Test and measurement procedures	27
4.1	Visual examination and check of dimensions	27
4.1.1	General	27
4.1.2	Visual examination and check of dimensions	28
4.1.3	Requirements	28
4.2	Electrical tests	28
4.2.1	Voltage proof for AC capacitors	28
4.2.2	Capacitance	29
4.2.3	Tangent of loss angle ($\tan \delta$)	30
4.2.4	Insulation resistance	31
4.2.5	Inductance (if required)	32
4.2.6	Characteristics depending on temperature (if required in the detail specification)	32
4.3	Robustness of terminations	33
4.3.1	General	33
4.3.2	Initial inspections	33
4.3.3	Final inspections and requirements	33
4.4	Resistance to soldering heat	33
4.4.1	General	33
4.4.2	Initial inspections	33
4.4.3	Test conditions	33
4.4.4	Recovery	34
4.4.5	Final inspections, measurements and requirements	34
4.5	Solderability	34
4.5.1	General	34
4.5.2	Test conditions	34
4.5.3	Final inspections and requirements	34
4.6	Rapid change of temperature	34
4.6.1	General	34
4.6.2	Initial inspections	34
4.6.3	Test conditions	35
4.6.4	Final inspections and requirements	35
4.7	Vibration	35
4.7.1	General	35
4.7.2	Initial inspections	35
4.7.3	Test conditions	35
4.7.4	Final inspections and requirements	35
4.8	Bump (repetitive shock)	35
4.8.1	General	35
4.8.2	Initial measurements	35
4.8.3	Test conditions	36
4.8.4	Final inspections, measurements and requirements	36
4.9	Shock	36
4.9.1	General	36
4.9.2	Initial measurements	36
4.9.3	Test conditions	36
4.9.4	Final inspection, measurements and requirements	36
4.10	Climatic sequence	37
4.10.1	General	37

4.10.2	Initial measurements	37
4.10.3	Dry heat	37
4.10.4	Damp heat, cyclic, Test Db, first cycle	37
4.10.5	Cold.....	37
4.10.6	Low air pressure (if required).....	37
4.10.7	Damp heat, cyclic, Test Db, remaining cycles	37
4.10.8	Recovery	37
4.10.9	Final inspections, measurements and requirements.....	38
4.11	Damp heat, steady state	38
4.11.1	General	38
4.11.2	Initial inspections.....	38
4.11.3	Test conditions	38
4.11.4	Recovery	38
4.11.5	Final inspections, measurements and requirements.....	38
4.11.6	Humidity robustness grades.....	38
4.12	Endurance	38
4.12.1	General	38
4.12.2	Endurance test at 50 Hz/60 Hz alternating voltage.....	39
4.12.3	Endurance test with sinusoidal current or voltage (if required)	39
4.12.4	Pulse endurance test (if required).....	40
4.13	Charge and discharge.....	40
4.13.1	General	40
4.13.2	Initial inspections.....	41
4.13.3	Test conditions	41
4.13.4	Recovery	41
4.13.5	Final inspections, measurements and requirements.....	41
4.14	Component solvent resistance (if required)	41
4.15	Solvent resistance of marking (if required)	41
Annex A	(normative) Humidity robustness grades	42
A.1	General.....	42
A.2	Humidity robustness grades	42
A.3	Indication of humidity robustness grades	43
Bibliography	44
Figure 1	– Category AC voltage/rated AC voltage versus upper category temperature	14
Table 1	– Preferred designations of performance grade and stability grade combinations	11
Table 2	– Preferred combinations of capacitance series and tolerance	13
Table 3	– Test and sampling plan for qualification approval, assessment level EZ	17
Table 4	– Test schedule for qualification approval.....	18
Table 5	– Lot-by-lot inspection	27
Table 6	– Periodic tests	27
Table 7	– Test voltages, DC.....	28
Table 8	– Test voltages, AC.....	29
Table 9	– Tangent of loss angle limits, 1 kHz.....	30
Table 10	– Tangent of loss angle limits, 10 kHz	30

Table 11 – Insulation resistance requirements	31
Table 12 – Insulation resistance correction factor dependent on test temperature	32
Table 13 – Characteristics at lower category temperature	32
Table 14 – Characteristics at upper category temperature	33
Table 15 – Preferred severities in shock test.....	36
Table A.1 – Minimum requirements	43

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –**Part 17: Sectional specification – Fixed metallized polypropylene film dielectric AC and pulse capacitors**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60384-17 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This third edition cancels and replaces the second edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) all parts of the document have been revised based on the ISO/IEC Directives, Part 2:2016 (seventh edition) and harmonization between other similar kinds of documents;
- b) tables and Clause 4 have been revised so as to prevent duplications and contradictions;
- c) new damp heat steady-state robustness classes with test conditions have been added in text, in Clause 4 and in Annex A.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
40/2654/FDIS	40/2664/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The list of all parts of the IEC 60384 series, under the general title *Fixed capacitors for use in electronic equipment*, can be found on the IEC web site.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 17: Sectional specification – Fixed metallized polypropylene film dielectric AC and pulse capacitors

1 General

1.1 Scope

This part of IEC 60384 applies to fixed capacitors with metallized electrodes and polypropylene dielectric for use in electronic equipment.

NOTE Capacitors that have mixed film and metallized electrodes are also within the scope of this standard.

These capacitors may have "self-healing" properties depending on conditions of use.

Capacitors covered by this specification are mainly intended for use with alternating voltage and/or for pulse applications. The maximum reactive power applicable is 10 000 var and the maximum peak voltage is 3 000 V.

Capacitors for reactive power exceeding 500 var, and to which a maximum peak voltage of 2 500 V at 50 Hz can be applied, are not covered by this document, except when they are the highest part of a range of reactive power mainly situated below 500 var at 50 Hz.

This document is not intended to cover capacitance values higher than 20 μF .

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Two performance grades of capacitors are covered, Grade 1 for long-life application and Grade 2 for general application.

Capacitors for electromagnetic interference suppression are not included, but are covered by IEC 60384-14.

Capacitors for electrical shock hazard protection (covered by IEC 60065 of IEC technical committee 61) and fluorescent lamp and motor capacitors (covered by IEC 60252-1 and IEC 60252-2 of IEC technical committee 33), and capacitors for use in tubular fluorescent and other discharge lamp circuits (covered by IEC 61048 and IEC 61049 of IEC technical committee 34) are also excluded.

1.2 Object

The object of this document is to prescribe preferred ratings and characteristics and to select from IEC 60384-1:2016, the appropriate quality assessment procedures, tests and measuring methods and to give general performance requirements for this type of capacitor. Test severities and requirements prescribed in detail specifications referring to this sectional specification shall be of equal or higher performance level. Lower performance levels are not permitted.

1.3 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60062, *Marking codes for resistors and capacitors*

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60384-1:2016, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 60384-16, *Fixed capacitors for use in electronic equipment – Part 16: Sectional specification: Fixed metallized polypropylene film dielectric d.c. capacitors*

IEC 61193-2:2007, *Quality assessment systems – Part 2: Selection and use of sampling plans for inspection of electronic components and packages*

ISO 3, *Preferred numbers – Series of preferred numbers*

1.4 Information to be given in a detail specification

1.4.1 General

Detail specifications shall be derived from the blank detail specification.

Detail specifications shall not specify requirements inferior to those of the generic, sectional or blank detail specification. When more severe requirements are included, they shall be listed in 1.9 of the detail specification and indicated in the test schedules, for example by an asterisk.

The information given in 1.4.2 may, for convenience, be presented in tabular form.

The information in 1.4.2 to 1.4.4 shall be given in each detail specification and the values quoted shall preferably be selected from those given in the appropriate clause of this sectional specification.

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1.4.2 Outline drawing and dimensions

There shall be an illustration of the capacitor as an aid to easy recognition and for comparison of the capacitor with others. Dimensions and their associated tolerances, which affect interchangeability and mounting, shall be given in the detail specification. All dimensions shall preferably be stated in millimetres. However, when the original dimensions are given in inches, the converted metric dimensions in millimetres shall be added.

The numerical values of the body shall be given as follows:

- general case: width, length and height;
- for cylindrical body: diameter and length.

The numerical values of the terminals shall be given as follows:

- width or diameter, length and spacing.

When necessary, for example when a number of items (sizes and capacitance/voltage ranges) are covered by a detail specification, the dimensions and their associated tolerances shall be placed in a table below the drawing.

When the configuration is other than described above, the detail specification shall state such dimensional information as will adequately describe the capacitor. When the capacitor is not designed for use on printed boards, this shall be clearly stated in the detail specification.